

REMARKS

Claims 1-15, 17, 18, 20-73, 75-79 are now pending in the application. Claims 16, 19, and 74 are canceled and Claims 78-79 are added by this amendment. Minor amendments have been made to the specification and claims to simply overcome the objections to the specification and rejections of the claims under 35 U.S.C. § 112. The amendments to the claims contained herein are intended to broaden the scope thereof and/or are of equivalent scope as originally filed and, thus, are not a narrowing amendment. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

INTERVIEW SUMMARY

Applicants thank the Examiner for the interview granted on July 18, 2007 with Applicants' representative. During the interview proposed amendments to Claims 1, 22, and 33 were discussed with the Examiner. Also, the cited prior art was discussed with the Examiner. No agreement was reached as to the allowability of the pending claims.

CLAIM OBJECTIONS

Claim 77 is objected to because of the following informalities: Claim 77 requires a first member to have an additional first member, third member and fourth member.

Claim 77 has been amended to overcome this objection. Therefore, Applicants respectfully request that the objection be removed.

REJECTION UNDER 35 U.S.C. § 112

Claim 2 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Claims 5 and 38 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. These rejections are respectfully traversed.

The Specification is hereby amended to include the language of Claim 2. No new subject matter has been added. Claims 5 and 38 have been amended to include proper antecedent basis. Therefore, Applicants request that the Examiner withdraw these rejections.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-18, 22-29, 33-44, 47-72 and 77 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Foley et al. (U.S. Pat. No. 6,226,548). Claims 1, 5-12, 15-16, 19-24, 26, 28-33, 43-46, 49-52, 67-69 and 71-76 stand rejected under 35 U.S.C. 102(b) as being anticipated by Acker et al. (U.S. Pat. No. 6,332,089). These rejections are respectfully traversed.

Initially, we note that Foley et al. is directed to a surgical navigation system with image guided technology. See col. 9, lines 27-31 and col. 11, lns. 9-11. Images can be acquired of the spinal elements 100, which are the vertebrae. Foley et al. discloses that additional screws can be placed in the vertebrae adjacent to the vertebrae containing the clamp and post prior to scanning. The image of the additional screws also shows in this scan. The image of the screw can then be compared to the actual position of the

screw as indicated by a pointer probe that is touched to the head. See col. 9, lines 58-63. A probe can be used to adjusted a screw head, which can also be used to indicate the location and orientation of the screw head to the computer. See col. 10, lines 43-55.

Acker et al. is directed to a system including an intrabody probe. A site probe is affixed in the patient's body at the position to be treated. See. Acker et al. col. 12, Ins. 24-27. Acker et al. describes that a bold arrow or indicia can indicate the position of the instrument probe to the site probe. See. Acker et al. col. 12, Ins. 47-50 and col. 20, Ins. 9-53. Acker et al., however, fails to describe an implanted member, system, or other elements as recited in the presently pending claims.

Claim 1 has been amended to recite, "wherein at least one of the first member, the second member, or combinations thereof are operable to fixed into a boney structure; wherein said processor is operable to allow navigation of at least one of said first member or said second member in a substantially patient imageless manner." Contrary to Acker et al., there is no anticipation of the members to be fixed to a boney structure. Contrary to Foley et al., a processor is recited to allow navigation in a substantially patient imageless manner.

Also, claims that depend directly or indirectly form Claim 1 include patentable subject matter. For example, Claims 2, 3, and 78 are directed to structures that are not anticipated by Foley et al. or Acker et al., either alone or in combination. As discussed with the Examiner the subject matter in these claims is directed to structural features of the members.

Claim 22 has been amended to recite, "the first member including a bone engaging portion for fixation to a boney structure; . . . a navigable instrument operable

to move the second member relative to the first member; . . . wherein said processor is operable to navigate said navigable instrument relative to said tracking element for positioning of the second member relative to the first member in a substantially patient imageless display.” This is contrary to both Foley et al. and Acker et al. in that neither Acker et al. or Foley et al. describe maintaining a connection of a tracking element as recited in Claim 22.

Claim 33 has been amended to recite, “positioning the first member into a boney structure; . . . displaying an icon to represent the position of at least two of the first member, the second member, or the third member in a substantially patient imageless manner.” Applicants respectfully submit that neither Foley et al. nor Acker et al. anticipate a substantially patient imageless manner as recited in Claim 33. Therefore, Claim 33, and each of the claims that depend directly or therefrom, is in condition for allowance.

Again the claims that depend from Claim 33 include patentable subject matter in addition to Claim 33. For example, Claim 38 is directed to selecting a characteristic. Claim 47 is directed to a pedicle screw.

Claim 53 recites, “displaying said position of each of said first member and the second member as two or more icons on a display; . . . displaying an additional icon relative to the two or more icons to illustrate a position of at least one of said first member, said second member, or said third member in a substantially patient imageless manner.” Applicants respectfully submit that neither Foley et al. nor Acker et al. anticipate navigating or displaying the icons, as recited in Claim 53, in a substantially patient imageless manner.

Finally, Claim 67 recites, "a display to display a first icon to represent a position of the first member and a second icon to represent a position of the second member relative to said first member; a tracking element associated with a moveable head of the first member to assist in determining a position of the first member; . . . a navigable instrument operable to move the second member relative to the first member which is fixedly implanted into a boney structure of an anatomy; and . . . wherein the display is operable to illustrate the first icon and the second icon in a substantially patient imageless manner for navigation of the first member relative to the second member". Applicants respectfully submit that Foley et al. does not anticipate a substantially patient imageless manner, as recited in Claim 67. Applicants respectfully submit that Acker et al. does not anticipate a first member fixedly implanted, as recited in Claim 67.

Therefore, Applicants submit that each of the presently pending claims are neither anticipated nor rendered obvious by the cited art. Applicants request that the Examiner withdraw each of the rejections and allow all of the pending claims.

NEW CLAIMS

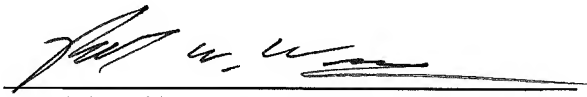
New Claims 78 and 79 are directed to a screw with a shank. Applicants submit that support for these claims can be found through the application as filed, including Fig. 3A. Also, Applicants submit, as discussed with the Examiner, that the screw structure may be allowable with a patient imageless navigation.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: Aug 23, 2007

By: 
Richard W. Warner, Reg. No. 38,043
Michael L. Taylor, Reg. No. 50,521

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

SJF/RWW/MLT/srh